TUELECTRIC

Log # TXX-90061
File # 916
Ref. # 10CFR50.36

March 28, 1990

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
TECHNICAL SPECIFICATION CHANGES

REF: NRC Letter from Mr. C. I. Grimes to Mr. W. J. Cahill, Jr., dated September 12, 1989

Gentlemen:

Attached are the marked-up pages of the draft CPSES Unit 1 Technical Specifications and BASES (NUREG 1381) provided with the low power operating license. These marked-up pages reflect changes requested by TU Electric to be included into the full power operating license for CPSES Unit 1. Also attached is a description of these changes. FSAR changes associated with chapter 6, "Administrative Controls," of the Technical Specifications will be provided in a separate submittal.

Sincerely,

William J. Cahill, Jr.

By: JSMarshall
J. S. Marshall
Generic Licensing Manager

MCP/vld
Attachments

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)

D029
1/1

CPSES TS REVISION 1
DETAILED DESCRIPTION

TS Page (as amended)	Group	Description
Table 2.2-1	2	Revise NIS-Power Range "S" value in Table 2.2-1 sh 1 of 5 to allow calibration using the installed meters instead of the DMM originally assumed in the daily recalibration. Revision: The change in the "S" value reflects the uncertainty associated with the front panel meters. Adequate allowance exists between the setpoint and the safety analysis limit so that only the "S" value needs change. TS Change Request Number: TS-90008.1 SER/SSER Impact: No
Table 2.2-1	2	Revise Steam Generator Level Low-Low due to removal of unnecessary uncertainties. Revision: Westinghouse has quantified the uncertainty due to the velocity head created by the fluid flowing past the lower NR Level tap. This uncertainty is no longer required in this setpoint calculation. TS Change Request Number: TS-90008.2 SER/SSER Impact: No
3/4 1-8, 10	4	See Page No(s):3/4 5-7, 8, and 9 Clarification: Change wording to clearly express that this condition is allowed by Specification 3.4.8.3 only when the Specification is not applicable. TS Change Request Number: TS-90-012 SER/SSER Impact: No
3/4 1-11, 13	4	See Page No(s):3/4 5-1,10, and 3/4 7-5 Clarification: This change provides consistency between the words used in the Surveillance Requirements and the LCO. TS Change Request Number: TS-90-013 Related SER Section: 16 SER/SSER Impact: No
3/4 1-20, 22	2	Implementation of Westinghouse recommended control rod wear mitigation techniques. Revision: IE Information Notice No. 87-19 notified Westinghouse facilities of potential for perforation and cracking of RCCAs. The proposed changes to the Technical Specifications allows the implementation of recommended wear mitigation techniques. Similar changes have been accepted by the NRC for the Wolf

TS Page (as amended)	Group	Description
		Creek facility. Westinghouse has assessed the impact of the change for CPSES and has concluded that the shutdown margin will not be violated and that the MTC values are bounded by values assumed in the safety analyses. Additionally the effect on Fz and Axial Offset is at most +0.5% relative to the all-rods-out calculation (when the RCCAs are parked furthest in the core). TS Change Request Number: TS-90-007 SER/SSER Impact: No
Table 3/4 3-27	2	Revise S/G Level Hi-Hi to include increased instrument uncertainty. Revision: Magnitude of the velocity head bias higher than the assumed value used in the S/G hi-hi setpoint calculation Adequate allowance exists between safety analysis limit and setpoint so that only "Z" term affected. TS Change Request Number: TS-90008.3 SER/SSER Impact: No
Table 3/4 3-28	2	Revise Steam Generator Level low-low due to removal of unnecessary uncertainties Revision: Westinghouse has quantified the uncertainties due to velocity head created by the fluid flowing past the lower NR level tap. This uncertainty is no longer required in this setpoint calculation. TS Change Request Number: TS-90008.4 SER/SSER Impact: No
3/4 6-13	2	Added PORV exemption to the note of the LCO. Revision: Added to the LCO note the exemption of Specification 3.7.1.7 since these valves are adequately covered by Specification 3.7.1.7. This is consistent with Specifications 3.7.1.1, 3.7.1.5, and 3.7.1.6, all of which handle their respective valve(s) outside of Specification 3/4.6.3. TS Change Request Number: TS-90-014 Related SER Section: 16 SER/SSER Impact: No
3/4 7-24	2	See Page No(s):B 3/4 7-6 Revise Containment Bldg Area Temperature Monitoring. Revision: These areas do not have remote reading instrumentation

TS Page (as amended)	Group	Description
		that would allow monitoring these specific areas. The Reactor Coolant Pipe Penetration area has been demonstrated by calculation to be less that 200 F if the bulk average temperature of the containment is less than 120 F. The bulk area temperature is monitored by Specifications 3/4.6.1.5 and 3/4.7.10, Table 3.7-3 item 6 (General Areas). The CRDM Platform Barrier area is enveloped by the CRDM Shroud Exhaust. It has been demonstrated by calculation that the platform barrier will be less than 140 F when the shroud exhaust is less than 163 F. Reactor Cavity Exhaust Abnormal Conditions has been changed from 175 F to 190 F, which is consistent with the previous change in the normal conditions from 135 F to 150 F (an increase of 15 F based on the location of temperature monitor). Additonal SSER #'s: 3,4,23 SSER Section numbers: 9.4 TS Change Request Number: TS-90-006 Related SER Section: 9.4; SSER22 9.4 SER/SSER Impact: No
B 3/4 8-1	3	Clarifies the day fuel tank and fuel oil storage tank fuel oil volumes as specified in Technical Specifications 3.8.1.1 and 3.8.1.2. Clarification: The volumes for fuel oil specified in Technical Specifications 3.8.1.1 and 3.8.1.2 for the day fuel tank and fuel storage tank needed clarification since the combined volumes are used to meet the requirements for NRC Regulatory Guide 1.137, January 1978, for the minimum required on-site fuel oil storage capacity. For purposes of definition, the Fuel Storage System at CPSES consists of the Fuel Oil Storage Tank and is equivalent to the ANSI N195-1976 definition for supply tank. The bases for the minimum capacity of the Fuel Storage System and the day fuel tank volumes is to meet the seven day on-site fuel oil storage capacity criteria requirements of NRC Regulatory Guide 1.137, January 1978, and ANSI N195-1976. The minimum day fuel tank capacity also meets the requirements of 60 minutes of diesel generator operation at continuous rating plus 10 percent margin as required by NRC Regulatory Guide 1.137, January 1978, and ANSI N195-1976. For added conservatism, the minimum volume required for 60 minutes plus 10 percent is excluded from the minimum required volume to operate the diesel generator at rated capacity for seven days. TS Change Request Number: TS-90-015 Related SER Section: 9.5.4; SSER22 9.5.4 SER/SSER Impact: No

TS Page (as amended)	Group	Description
6-5, 6	2	Revise SORC quorum and membership requirements. Revision: The SORC charter is to advise the Vice President, Nuclear Operations on matters of nuclear safety. As such, the core of the committee is being changed to those functions/disciplines which are involved in the daily/routine operation of the plant. Also, the membership limiting restriction has been removed, thus permitting the SORC membership, designated by the VP, NO, to expand in expertise and background. As described, the SORC quorum can not be less than what was originally accepted and actually becomes a larger group since the quorum will be based on the membership designated by the VP, NO. TS Change Request Number: TS90-005 Commitment Register Number: Y8-0366 & NL-2837 Related SSER Section: SSER22 13.4.1 SER/SSER Impact: Yes SSER-22, section 13.4.1, defines the SORC quorum as the Chairman or Vice-Chairman plus five members. This is incorrectly stated as the FSAR (A-76) lists the SORC quorum as the Chairman (or Vice Chairman) and FOUR members. SORC membership, as descibed, is unchanged.

TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux					
a. High Setpoint	7.5	4.56	~~0~~ 1.25	≤109% of RTP*	≤111.7% of RTP*
b. Low Setpoint	8.3	4.56	~~0~~ 1.25	≤25% of RTP*	≤27.7% of RTP*
3. Power Range, Neutron Flux, High Positive Rate	1.6	0.5	0	≤5% of RTP* with a time constant ≥2 seconds	≤6.3% of RTP* with a time constant ≥2 seconds
4. Power Range, Neutron Flux, High Negative Rate	1.6	0.5	0	≤5% of RTP* with a time constant ≥2 seconds	≤6.3% of RTP* with a time constant ≥2 seconds
5. Intermediate Range, Neutron Flux	17.0	8.41	0	≤25% of RTP*	≤31.5% of RTP*
6. Source Range, Neutron Flux	17.0	10.01	0	$\leq 10^5$ cps	$\leq 1.4 \times 10^5$ cps
7. Overtemperature N-16	5.8	3.65	1.2+0.8(1)	See Note 1	See Note 2
8. Overpower N-16	4.0	1.93	0	≤112% of RTP*	≤115.1% of RTP*
9. Pressurizer Pressure-Low	4.4	0.71	2.0	≥1880 psig	≥1863.6 psig
10. Pressurizer Pressure-High	7.5	5.01	1.0	≤2385 psig	≤2400.8 psig

*RTP = RATED THERMAL POWER
(1) 1.2% span for delta-T (RTDs) and 0.8% for pressurizer pressure.

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
11. Pressurizer Water Level-High	8.0	2.18	2.0	≤92% of instrument span	≤93.9% of instrument span
12. Reactor Coolant Flow-Low	2.5	1.18	0.6	≥90% of loop design flow**	≥88.6% of loop design flow**
13. Steam Generator Water Level - Low-Low	~~28.0~~ 25.0	~~25.58~~ 22.08	2.0	≥~~28.0%~~ 25.0 of narrow range instrument span	≥~~26.4%~~ 23.1 of narrow range instrument span
14. Undervoltage - Reactor Coolant Pumps	7.7	0	0	≥4830 volts-each bus	≥4753 volts-each bus
15. Underfrequency - Reactor Coolant Pumps	4.4	0	0	≥57.2 Hz	≥57.1 Hz
16. Turbine Trip					
a. Low Trip System Pressure	N.A.	N.A.	N.A.	≥59 psig	≥46.6 psig
b. Turbine Stop Valve Closure	N.A.	N.A.	N.A.	≥1% open	≥1% open
17. Safety Injection Input from ESF	N.A.	N.A.	N.A.	N.A.	N.A.

**Loop design flow = 95,700 gpm.

FLOW PATHS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.2 At least two of the following three boron injection flow paths shall be OPERABLE:

a. The flow path from the boric acid storage tanks via either a boric acid transfer pump or a gravity feed connection and a charging pump to the Reactor Coolant System (RCS), and

b. Two flow paths from the refueling water storage tank via centrifugal charging pumps to the RCS.

APPLICABILITY: MODES 1, 2, 3, and 4.*

ACTION:

With only one of the above required boron injection flow paths to the RCS OPERABLE, restore at least two boron injection flow paths to the RCS to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least 1% Δk/k at 200°F within the next 6 hours; restore at least two flow paths to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.2 At least two of the above required flow paths shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that the temperature of the flow path from the boric acid storage tanks is greater than or equal to 65°F when it is a required water source;

b. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position; and

c. At least once per 18 months by verifying that the flow path required by Specification 3.1.2.2a. delivers at least 30 gpm to the RCS.

---

is not applicable

*A maximum of two charging pumps shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 350°F except ~~as~~ when ~~allowed by~~ Specification 3.4.8.3. An inoperable pump may be energized for testing provided the discharge of the pump has been isolated from the RCS by a closed isolation valve(s) with power removed from the valve operator(s) or by a manual isolation valve(s) secured in the closed position.

CHARGING PUMPS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.4 At least two centrifugal charging pumps shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3*, and 4** *.

ACTION:

With only one charging pump OPERABLE, restore at least two charging pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least 1% $\Delta k/k$ at 200°F within the next 6 hours; restore at least two charging pumps to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.4.1 The required centrifugal charging pump(s) shall be demonstrated OPERABLE by testing pursuant to Specification 4.0.5.

4.1.2.4.2 The required positive displacement charging pump shall be demonstrated OPERABLE by testing pursuant to Specification 4.1.2.2.c.

4.1.2.4.3 Whenever the temperature of one or more of the Reactor Coolant System (RCS) cold legs is less than or equal to 350°F, a maximum of two charging pumps shall be OPERABLE, except ~~as allowed by~~ when Specification 3.4.8.3 is not applicable. When required, one charging pump shall be demonstrated inoperable# at least once per 31 days by verifying that the motor circuit breakers are secured in the open position.

---

*The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry into MODES 3 and 4 for the charging pump declared inoperable pursuant to Specification 3.1.2.4 provided the charging pump is restored to OPERABLE status within 4 hours after entering MODE 3 or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

**In MODE 4 the positive displacement pump may be used in lieu of one of the required centrifugal charging pumps.

#An inoperable pump may be energized for testing provided the discharge of the pump has been isolated from the RCS by a closed isolation valve(s) with power removed from the valve operator(s) or by a manual isolation valve(s) secured in the closed position.

BORATED WATER SOURCE - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.5 As a minimum, one of the following borated water sources shall be OPERABLE:

a. A boric acid storage tank with:

   1) A minimum indicated borated water level of 10% when using the boric acid transfer pump,

   2) A minimum indicated borated water level of 20% when using the gravity feed connection,

   3) A minimum boron concentration of 7000 ppm, and

   4) A minimum solution temperature of 65°F.

b. The refueling water storage tank (RWST) with:

   1) A minimum indicated borated water level of 24%,

   2) A minimum boron concentration of 2000 ppm, and

   3) A minimum solution temperature of 40°F.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no borated water source OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.1.2.5 The above required borated water source shall be demonstrated OPERABLE:

a. At least once per 7 days by:

   1) Verifying the boron concentration of the water,

   2) Verifying the indicated borated water ~~volume,~~ level, and

   3) Verifying the boric acid storage tank solution temperature when it is the source of borated water.

b. At least once per 24 hours by verifying the RWST temperature when it is the source of borated water and the outside air temperature is less than 40°F.

SURVEILLANCE REQUIREMENTS

4.1.2.6 Each borated water source shall be demonstrated OPERABLE:

a. At least once per 7 days by:

1) Verifying the boron concentration in the water,

2) Verifying the indicated borated water ~~volume~~ level, of the water source, and

3) Verifying the boric acid storage tank solution temperature when it is the source of borated water.

b. At least once per 24 hours by verifying the RWST temperature when the outside air temperature is either less than 40°F or greater than 120°F.

REACTIVITY CONTROL SYSTEMS

SHUTDOWN ROD INSERTION LIMIT

LIMITING CONDITION FOR OPERATION

3.1.3.5 All shutdown rods shall be fully withdrawn*.

APPLICABILITY: MODES 1** and 2** #.

ACTION:

With a maximum of one shutdown rod not fully withdrawn, except for surveillance testing pursuant to Specification 4.1.3.1.2, within 1 hour either:

a. Fully withdraw the rod, or

b. Declare the rod to be inoperable and apply Specification 3.1.3.1.

SURVEILLANCE REQUIREMENTS

4.1.3.5 Each shutdown rod shall be determined to be fully withdrawn:

a. Within 15 minutes prior to withdrawal of any rods in Control Bank A, B, C, or D during an approach to reactor criticality, and

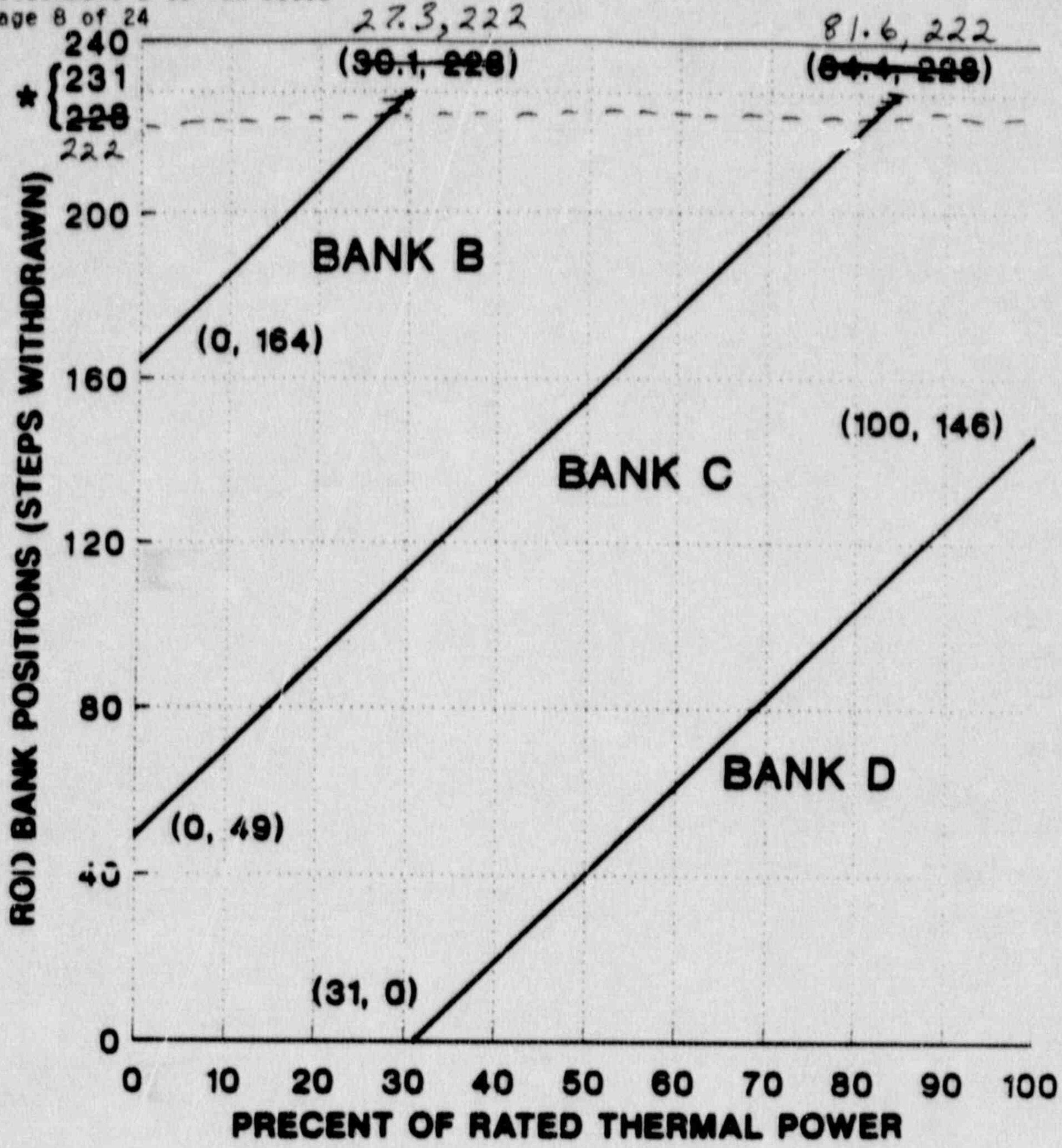
b. At least once per 12 hours thereafter.

---

*Fully withdrawn shall be the condition where shutdown rods are at a position within the interval of $\geq$ ~~228~~ 222 and $\leq$ 231 steps withdrawn.

**See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

#With K_{eff} greater than or equal to 1.



* Fully withdrawn shall be the condition where control rods are at a position within the interval of ≥ ~~228~~ 222 and ≤ 231 steps withdrawn.

FIGURE 3.1-1

ROD BANK INSERTION LIMITS VERSUS THERMAL POWER

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
4. Steam Line Isolation					
a. Manual Initiation	N.A.	N.A.	N.A.	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
c. Containment Pressure--High-2	2.7	0.71	1.7	≤6.2 psig	≤6.8 psig
d. Steam Line Pressure--Low	17.3	15.01	2.0	≥605 psig*	≥593.5 psig*
e. Steam Line Pressure - Negative Rate--High	8.0	0.5	0	≤100 psi**	≤ 178.7 psi**
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
b. Steam Generator Water Level--High-High	7.6	~~4.28~~ 4.78	2.0	≤82.4% of narrow range instrument span.	≤84.3% of narrow range instrument span.
c. Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
6. Auxiliary Feedwater					
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
b. Steam Generator Water Level--Low-Low	~~28.0~~ 25.0	~~25.58~~ 22.08	2.0	> ~~28.0%~~ 25.0% of narrow range instrument span.	> ~~26.4%~~ 23.1% of narrow range instrument span.
c. Safety Injection - Start Motor Driven Pumps	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				
d. Loss-of-Offsite Power	N.A.	N.A.	N.A.	N.A.	N.A.
e. Trip of All Main Feedwater Pumps	N.A.	N.A.	N.A.	N.A.	N.A.
7. Automatic Initiation of ECCS Switchover to Containment Sump					
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	N.A.
b. RWST Level--Low-Low	2.5	0.71	1.25	≥ 40.0% of span	≥ 38.9% of span
Coincident With Safety Injection	See item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				
8. Loss of Power (6.9 kV & 480 V Safeguards System Undervoltage)					
a. 6.9 kV Preferred Offsite Source Undervoltage	N.A.	N.A.	N.A.	≥ 5004 V	≤ 5900 V ≥ 4900 V

EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

COLD LEG INJECTION

LIMITING CONDITION FOR OPERATION

3.5.1 Each cold leg injection accumulator shall be OPERABLE with:

a. The discharge isolation valve open with power removed,

b. An indicated borated water level of between 39% and 61%

c. A boron concentration of between 1900 and 2200 ppm, and

d. An indicated cover-pressure of between 623 and 644 psig.

APPLICABILITY: MODES 1, 2, and 3*.

ACTION:

a. With one cold leg injection accumulator inoperable, except as a result of a closed isolation valve or the boron concentration outside the required values, restore the inoperable accumulator to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

b. With one cold leg injection accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in at least HOT STANDBY within 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

c. With the boron concentration of one cold leg injection accumulator outside the required limit, restore the boron concentration to within the required limits within 72 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.1 Each cold leg injection accumulator shall be demonstrated OPERABLE:

a. At least once per 12 hours by:

1) Verifying the indicated borated water ~~volume~~ level and nitrogen cover-pressure in the tanks, and

*Pressurizer pressure above 1000 psig.

3/4.5.3 ECCS SUBSYSTEMS - T_{avg} ≤ 350°F

ECCS SUBSYSTEMS

LIMITING CONDITION FOR OPERATION

3.5.3.1 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

a. One OPERABLE centrifugal charging pump,*

b. One OPERABLE RHR heat exchanger,

c. One OPERABLE RHR pump, and

d. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

a. With no ECCS subsystem OPERABLE because of the inoperability of either the centrifugal charging pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.

b. With no ECCS subsystem OPERABLE because of the inoperability of either the residual heat removal heat exchanger or RHR pump, restore at least one ECCS subsystem to OPERABLE status or maintain the Reactor Coolant System T_{avg} less than 350°F by use of alternate heat removal methods.

c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

---

*A maximum of two charging pumps shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 350°F, except ~~as~~ when ~~allowed by~~ Specification 3.4.8.3 is not applicable.

SURVEILLANCE REQUIREMENTS

4.5.3.1.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable requirements of Specification 4.5.2.

4.5.3.1.2 A maximum of two charging pumps shall be OPERABLE except ~~as allowed by~~ Specification 3.4.8.3 is not applicable. When required, one charging pump shall be demonstrated inoperable* by verifying that the motor circuit breaker is secured in the open position within 4 hours after entering MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever occurs first and at least once per 31 days thereafter.

---

*An inoperable pump may be energized for testing provided the discharge of the pump has been isolated from the RCS by a closed isolation valve(s) with power removed from the valve operator(s) or by a manual isolation valve(s) secured in the closed position.

3/4.5.3 ECCS SUBSYSTEMS - $T_{avg} \leq 350°F$

SAFETY INJECTION PUMPS

LIMITING CONDITION FOR OPERATION

3.5.3.2 All safety injection pumps shall be inoperable.

APPLICABILITY: Modes 4#, 5, and 6 with the reactor vessel head on.

ACTION:

With a safety injection pump OPERABLE, restore all safety injection pumps to an inoperable status within 4 hours.

SURVEILLANCE REQUIREMENTS

4.5.3.2 All safety injection pumps shall be demonstrated inoperable* by verifying that the motor circuit breakers are secured in the open position within 4 hours after entering MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever occurs first and at least once per 31 days thereafter.

*An inoperable pump may be energized for testing or for filling accumulators provided the discharge at the pump has been isolated from the RCS by a closed isolation valve(s) with power removed from the valve operator(s), or by a manual isolation valve(s) secured in the closed position.

#Except ~~as allowed by~~ when Specification 3.4.8.3e.1 is not applicable.

3/4.5.4 REFUELING WATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.5.4 The refueling water storage tank (RWST) shall be OPERABLE with:

a. A minimum indicated borated water level of 95%,

b. A boron concentration of between 2000 and 2200 ppm of boron,

c. A minimum solution temperature of 40°F, and

d. A maximum solution temperature of 120°F.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the RWST inoperable, restore the tank to OPERABLE status within 1 hour or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.5.4 The RWST shall be demonstrated OPERABLE:

a. At least once per 7 days by:

1) Verifying the indicated borated water level ~~volume~~ in the tank, and

2) Verifying the boron concentration of the water.

b. At least once per 24 hours by verifying the RWST temperature when the outside air temperature is less than 40°F or greater than 120°F.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE.#

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

*With one or more of the containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The containment isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

#The requirements of Specification 3.6.3 do not apply for those valves covered by Specifications 3.7.1.1, 3.7.1.5, ~~and~~ 3.7.1.6, and 3.7.1.7.

*CAUTION: The inoperable isolation valve(s) may be part of a system(s). Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly.

CONDENSATE STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The condensate storage tank (CST) shall be OPERABLE with an indicated water level of at least 53%.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the CST inoperable, within 4 hours either:

a. Restore the CST to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours, or

b. Demonstrate the OPERABILITY of the Station Service Water (SSW) system as a backup supply to the auxiliary feedwater pumps and restore the CST to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

level

4.7.1.3.1 The CST shall be demonstrated OPERABLE at least once per 12 hours by verifying the indicated water ~~volume~~ is within its limits when the tank is the supply source for the auxiliary feedwater pumps.

4.7.1.3.2 The SSW system shall be demonstrated OPERABLE at least once per 12 hours whenever the SSW system is being used as an alternate supply source to the auxiliary feedwater pumps by verifying the SSW system OPERABLE and each motor operated valve between the SSW system and each OPERABLE auxiliary feedwater pump is OPERABLE.

TABLE 3.7-3

AREA TEMPERATURE MONITORING

AREA	MAXIMUM TEMPERATURE LIMIT (°F) Normal Conditions	Abnormal Conditions
1. Electrical and Control Building		
Normal Areas	104	131
Control Room Main Level (El. 830'-0")	80	104
Control Room Technical Support Area (El. 840'-6")	104	104
UPS/Battery Rooms	104	113
Chiller Equipment Areas	122	131
2. Fuel Building		
Normal Areas	104	131
Spent Fuel Pool Cooling Pump Rooms	122	131
3. Safeguards Building		
Normal Areas	104	131
AFW, RHR, SI, Containment Spray Pump Rooms	122	131
RHR Valve and Valve Isolation Tank Rooms	122	131
RHR/CT Heat Exchanger Rooms	122	131
Diesel Generator Area	122	131
Diesel Generator Equipment Rooms	130	131
Day Tank Room	122	131
4. Auxiliary Building		
Normal Areas	104	131
CCW, CCP Pump Rooms	122	131
CCW Heat Exchanger Area	122	131
CVCS Valve and Valve Operating Rooms	122	131
Auxiliary Steam Drain Tank Equipment Room	122	131
Waste Gas Tank Valve Operating Room	122	131
5. Service Water Intake Structure	127	131
6. Containment Building		
General Areas	120	129
~~CRDM Platform~~	~~140~~	~~149~~
Reactor Cavity Exhaust	150	~~175~~ 190
~~R.C. Pipe Penetrations~~	~~200~~	~~209~~
CRDM Shroud Exhaust	163	172

BASES

SNUBBERS (Continued)

A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with 10 CFR 50.71(c). The accessibility of each snubber shall be determined and approved by the Station Operation Review Committee (SORC). The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guides 8.8 and 8.10. The addition or deletion of any hydraulic or mechanical snubber shall be made in accordance with 10 CFR 50.59.

Surveillance to demonstrate OPERABILITY is by performance of the requirements of an approved inservice inspection program.

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubbers for the applicable design conditions at either the completion of their fabrication or at a subsequent date. Snubbers so exempted shall be listed in the list of individual snubbers indicating the extent of the exemptions.

The service life of a snubber is established via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubbers, seal replaced, spring replaced, in high radiation area, in high temperature area, etc.). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

3/4.7.10 AREA TEMPERATURE MONITORING

The limitations on nominal area temperatures ensure that safety-related equipment will not be subjected to temperatures that would impact their environmental qualification temperatures. Exposure to temperatures in excess of the maximum temperature for normal conditions for extended periods of time could reduce the qualified life or design life of that equipment. Exposure to temperatures in excess of the maximum abnormal temperature could degrade the operability of that equipment.

See Insert "A"

3/4.7.11 UPS HVAC SYSTEM

The OPERABILITY of the UPS HVAC System ensures that the uninteruptible power supply and distribution rooms ambient air temperatures do not exceed the allowable temperatures per Specification 3/4.7.10 for continuous-duty rating for the equipment and instrumentation cooled by this equipment.

INSERT - 'A'

Normal and Abnormal temperature limits for the following areas are assured by monitoring other areas with a Correlated temperatur relationship.

Area	Normal Conditions	Abnormal Conditions	Area Monitored
CRDM Platform Barrier	140	149	General Area CRDM Shroud Exhaust
Reactor Cavity Detector Well	135	175	Reactor Cavity Exhaust
R.C. Pipe Penetration Exhaust (N-16 Detectors)	200	209	General Areas Reactor Cavity Exhaust

3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for: (1) the safe shutdown of the facility, and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of 10 CFR 50 Appendix A.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss-of-offsite power and single failure of the other onsite A.C. source. The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974 and Generic Letter 84-15, "Proposed Staff Position to Improve and Maintain Diesel Generator Reliability." When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term, verify, as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that: (1) the facility can be maintained in the shutdown or refueling condition for extended time periods, and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

INSERT B

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guides 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," March 10, 1971; 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977; and 1.137, "Fuel-Oil Systems for Standby Diesel Generators," January 1978, Generic Letter 84-15, and Generic Letter 83-26, "Clarification of Surveillance Requirements for Diesel Fuel Impurity Level Tests."

INSERT B

The OPERABILITY of the day fuel tank and Fuel Storage System are based on the following: 1) the minimum day fuel tank volume ensures sufficient fuel immediately available to operate the diesel generator at the continuous rating for 60 minutes plus 10 percent, and 2) the remaining day fuel tank volume (between that required for (1) above and the volume specified in the Limiting Conditions for Operation), combined with the minimum specified Fuel Storage System volume, ensures sufficient on-site fuel oil storage capacity to operate the diesel generator at the continuous rating for seven days.

The Fuel Storage System consists of the fuel oil storage tank and is equivalent to the ANSI N195-1976 definition for supply tank.

UNIT STAFF QUALIFICATIONS (Continued)

the qualifications of ANSI N18.1-1971, technicians and maintenance personnel may be permitted to perform work in the specific task(s) for which qualification has been demonstrated.)

6.4 TRAINING

6.4.1 A retraining and replacement training program for the unit staff shall be maintained under the direction of the Vice President, Nuclear Operations and shall meet or exceed the requirements and recommendations of ANSI-N18.1-1971, 10 CFR 55, and shall include familiarization with relevant industry operational experience.

6.5 REVIEW AND AUDIT

6.5.1 STATION OPERATIONS REVIEW COMMITTEE (SORC)

FUNCTION

6.5.1.1 The SORC shall function to advise the Vice President, Nuclear Operations on all matters related to nuclear safety.

COMPOSITION

, as a minimum,

6.5.1.2 The SORC shall be composed of managers or individuals reporting directly to managers from the areas listed below and meet the requirements of ANSI N18.1-1971 Sections 4.2 or 4.4 for required experience.

Operations
Maintenance
Instrumentation and Controls
Technical Support
Radiation Protection
Quality Assurance
~~Emergency Planning~~
~~Security~~
~~Testing~~

The Plant Manager shall serve as the chairman of SORC. A senior health physicist is acceptable for the Radiation Protection representative on SORC. The SORC members shall be designated, in writing, by the Vice President, Nuclear Operations.

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the Vice President, Nuclear Operations to serve on a temporary basis; however, no more than two alternates shall participate as voting members in SORC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The SORC shall meet at least once per calendar month and as convened by the SORC Chairman or his designated alternate.

QUORUM

6.5.1.5 The quorum of the SORC necessary for the performance of the SORC responsibility and authority provisions of these Technical Specifications shall consist of the Chairman or his designated alternate and ~~four (4) members, including alternates~~. a majority of the regular members (or their alternates).

RESPONSIBILITIES

6.5.1.6 The SORC shall be responsible for:

a. Review of applicable administrative procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February, 1978.

b. Review of the safety evaluations for: (1) procedures, (2) change to procedures, equipment, systems or facilities, and (3) tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question;

c. Review of proposed procedures and changes to procedures, equipment, systems or facilities which involve an unreviewed safety question as defined in 10 CFR 50.59 or involves a change in Technical Specifications;

d. Review of proposed test or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59 or requires a change in Technical Specifications;

e. Review of proposed changes to Technical Specifications or the Operating License;

f. Investigation of all violations of the Technical Specifications including the forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President, Nuclear Operations and to the ORC;

g. Review of reports of operating abnormalities, deviations from expected performance of plant equipment and of unanticipated deficiencies in the design or operation of structures, systems or components that affect nuclear safety;

h. Review of all REPORTABLE EVENTS;